

network 603. The 3D printer generates the chassis of the device 100 using a 3D printing process as described above. In one embodiment, the definition server 601 includes a chassis database 611. The chassis database 611 includes various chassis definition files. Each chassis definition file is associated with a unique chassis and describes structural features of the chassis. For example, a chassis definition file for a chassis defines the size and shape of the associated chassis as well as the size, shape, position, and number of the attachment structures included in the chassis. Also, each chassis definition file describes the pattern of the traces that are included in the associated chassis.

[0093] A user of the 3D printer 609 loads a chassis definition file retrieved from the chassis database 611 into the 3D printer 609. The 3D printer 609 then creates the chassis 101 of the device 100 using a 3D printing process.

[0094] Although this description has been provided in the context of specific embodiments, those of skill in the art will appreciate that many alternative embodiments may be inferred from the teaching provided. Furthermore, within this written description, the particular naming of the components, capitalization of terms, the attributes, data structures, or any other structural or programming aspect is not mandatory or significant unless otherwise noted, and the mechanisms that implement the described invention or its features may have different names, formats, or protocols.

[0095] Finally, it should be noted that the language used in the specification has been principally selected for readability and instructional purposes, and may not have been selected to delineate or circumscribe the inventive subject matter. Accordingly, the disclosure is intended to be illustrative, but not limiting, of the scope of the invention.

What is claimed is:

1. An electromechanical device comprising:
  - a processor module comprising:
    - a processor circuit,
    - a memory circuit connected to the processor circuit,
    - and
    - an interfacing circuit connected to the processor circuit;
  - and
  - a chassis including:
    - a first attachment structure configured to attach the processor module to the chassis,
    - one or more second attachment structures, each of the one or more second attachment structures configured to attach one of a plurality of functional modules to the chassis, each of the plurality of functional modules associated with a discrete functionality, and
    - a plurality of traces extending between the first attachment structure and the one or more second attachment structures to operatively connect the interfacing circuit of the processor module with one or more functional modules attached to the one or more second attachment structures.
2. The electromechanical device of claim 1, wherein the chassis is a unitary structure formed from a three-dimensional (3D) printing process to include the first attachment structure, the one or more second attachment structures, and the plurality of traces.
3. The electromechanical device of claim 2, wherein the first attachment structure is a first cavity extending into a

body of the chassis and having at least a subset of the plurality of traces exposed from a wall defining the first cavity, and each of the one or more second attachment structures is a second cavity having at least a subset of the plurality of traces extending into the body of the chassis and having at least a subset of the plurality of traces exposed from a wall defining the second cavity.

4. The electromechanical device of claim 3, wherein at least a subset of second cavities have a same size and shape.

5. The electromechanical device of claim 1, wherein at least two of the one or more second attachment structures are sized and shaped differently to attach one group of functional modules but not another group of functional modules.

6. The electromechanical device of claim 1, wherein each of the one or more second attachment structures includes an alignment structure to secure a corresponding functional module.

7. The electromechanical device of claim 1, wherein the plurality of functional modules comprise at least one of a speaker functional module, a microphone functional module, a touch pad functional module, a global positioning system (GPS) functional module, a display screen functional module, or a thermometer functional module.

8. The electromechanical device of claim 1, wherein the processor module is configured to determine the function to be performed by the electromechanical device by identifying functions performed by the functional modules attached to the chassis.

9. The electromechanical device of claim 8, wherein the processor module is configured to determine the function to be performed by the electromechanical device based further on an impedance of an interfacing connection of a functional module attached to the chassis.

10. The electromechanical device of claim 8, wherein the processor module further determines the function to be performed by the electromechanical device based on a sequence in which the one or more functional modules are attached to the chassis.

11. The electromechanical device of claim 8, wherein the processor module further determines the function to be performed by the electromechanical device based on which of the one or more second attachment structures are used to attach the one or more functional modules.

12. The electromechanical device of claim 11, wherein the electromechanical device performs a first function responsive to attaching a functional module to one of the second attachment structures, and the electromechanical device performs a second function responsive to attaching the same functional module to another of the second attachment structures.

13. The electromechanical device of claim 8, wherein the processor module further determines the function to be performed by the electromechanical device based on a pattern formed by the plurality of traces in the chassis.

14. The electromechanical device of claim 13, wherein the processor module determines that a first function is to be performed by the electromechanical device responsive to a set of functional modules connected through the plurality of trace wires of a first pattern, and wherein the processor module determines that a second function is to be performed by the electromechanical device responsive to the same set of functional modules connected through the plurality of trace wires of a second pattern.